






Aqueous storage-stable dispersions or solutions containing isocyanate reactive polymers and surface-deactivated solid polyisocyanates and method of preparing the same as well as a method of preparing a layer

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Abstract of EP1013690

The invention relates to one-pack aqueous dispersions or solutions of functional polymers, whereby said dispersions or solutions have a long shelf life, and to surface-deactivating solid polyisocyanates which cross-link under normal conditions. The aqueous dispersions contain solid polyisocyanates which have been surface-deactivated with polyamines. Said polyisocyanates have an average particle size less than or equal to 10 μ m and functional isocyanate-reactive polymers. Characteristics of the polymers which are dispersed or dissolved in water are a minimal film-forming temperature (MFT) less than or equal to +5 DEG C, a glass-transition temperature Tg less than or equal to -5 DEG C and a storage modulus G' less than or equal to 10⁷ Pa when measured at 10 Hertz and at 10 DEG C. After application and evaporation of the water, a closed film is building up. Said film can dissolve the surface-deactivation of the solid isocyanates which are dissolved in the polymer phase and react spontaneously with the functional groups under normal conditions, i.e. with the hydroxyl and amino groups of the polymer. Polymer layers having a higher heat and solvent resistance are the result. Said layers can be used as contact adhesives, assembly adhesives or coatings.

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